

**AMENDMENT TO THE DRAWINGS:**

Please amend the drawings by substitution of the enclosed revised Fig. 2. During the course of review of this application for preparation of the present response, it was noted that Fig. 2 erroneously labeled block 124 as 134. Correction is accordingly requested.

## **REMARKS**

This application has been carefully reviewed in view of the above Office Action. Applicant appreciates the withdrawal of the restriction/election requirements and further appreciates the continued indication of allowability of claims 10-16 and 32. No amendments have been made in this response, except to correct minor errors noted in the specification and drawing. The claims as they currently exist are included for the Examiner's convenience of reference.

To assure clarity of the record, it is noted that the prior Office Action cited the Morel '661 patent while the present Office Action is citing the Morel '814 reference in all rejections. An additional Morel reference is also of record. Applicant's remarks below are with regard to the current Morel '814 reference (Morel).

### **Regarding the rejection of claims 1-6 and 29-31**

These claims were rejected based upon the newly cited Morel reference in view of Liu of record. Applicant respectfully traverses as follows:

Morel is cited as having drift compensation and computing a drift reduction block; Morel further includes an inverse quantizer. However, it is noted that Morel's inverse quantizer is used to inverse quantize the data quantized by Q2 (See Fig. 1). As far as the undersigned can ascertain, there is no creation of a dropped coefficient block which is inverse quantized and inverse discrete cosine transformed as claimed in each of the rejected claims.

Claims 1, 4 and 29, each call for inverse quantizing one or more coefficients in a dropped coefficient block (to paraphrase without intent of imposing limitations - note that the claims require that a dropped coefficient block be formed by dropping at least one coefficient, and then that coefficient is inverse quantized.). Thus, although Morel has an inverse quantizer IQ2, it is used in a different capacity than that claimed in claims 1, 4 and 29. Hence, the presence of an inverse quantizer IQ2 in Morel fails to make any disclosure or suggestion that meets the claim features of claims 1, 4 or 29.

The Liu reference provides no additional teachings adequate to supplement the shortcomings of Morel in a manner that can be used to formulate a proper obviousness rejection. To reiterate the discussion from Applicant's prior response, Liu is totally silent on any teaching of drift reduction or compensation. It is noted that independent claims 1, 4 and 29 all call for computing a drift reduction block and carrying out drift compensation. The term "drift" does not even appear in the Liu reference.

The Office Action submits that Fig. 6 of Liu, element 618; and col. 3, lines 9-32 teach Applicant's claimed coefficient dropping claim features. Applicant respectfully disagrees and submits that Liu's teachings are taken out of context in formulating the rejection. Liu only teaches "coefficient dropping" when his process enters "panic mode". Panic mode is defined and the coefficient dropping is described in detail in col. 7, lines 8-51. Briefly, each channel is assigned a budget of processing cycles, and if a channel exceeds a predetermined multiple of its budget, the system enters "panic mode". In panic mode, higher frequency DTC coefficients are dropped in order to avoid buffer overflow. There is no teaching in Liu of coefficient dropping for or in the context of drift compensation or reduction.

As explained previously, coefficient dropping, as described by Liu, is used to reduce bit rate. However, coefficient dropping (such as described by Liu) is in fact the cause of the phenomenon known as drift. Thus, although the embodiments of Applicant's invention claimed do indeed contain an element that uses coefficient dropping, it does so as a part of a process that corrects the drift induced by the coefficient dropping carried out in Liu. Accordingly, Liu is clearly not in possession of Applicant's claimed invention, and further, one studying Liu would in fact learn to create rather than reduce or compensate drift. Thus, Liu fails to meet any of the further requirements of the claims in question by virtue of not processing the dropped coefficients in any way, contrary to the claim features.

It is further submitted that while elements similar to certain of the claim elements appear present in Liu and/or Morel, there is no motivation to make the proposed combination while making the modifications to the cited references that would enable the claims to read on the proposed combination. In both references, the inverse quantizer is

utilized in the conventional manner to recover pixel domain data (see col. 5, lines 66- col. 6, line 1 of Liu). (Note the similarity of Liu's Fig. 3(a) and 3(b) with Morel's Fig. 1.)

Moreover, given that Liu does nothing to reduce drift, and in fact no doubt creates drift, Liu can be viewed as teaching away from Applicant's claimed invention. However, it is submitted that if the proposed combination were made, Applicant's claimed invention would not result. In such a combination, the drift compensation method of Morel would not doubt be used in conjunction with the multiple processing modes and panic mode operation of Liu. Nothing about the combination suggests the forming of a dropped coefficient block which is inverse quantized and inverse discrete cosine transformed as claimed.

In view of the above, it is believed clear that claims 1-6 and 29-31 are neither taught, suggested nor enabled by the combination of Morel and Liu.

Specifically regarding claims 2-3, 5-6 and 30-31, Applicant again reiterates that Liu only teaches coefficient dropping within the context of his disclosed "panic mode". The Examiner's attention is directed to Fig. 6, where it is clear that block 618 (coefficient dropping) is only carried out when panic mode is entered (decision block 616).

Thus, in view of the above arguments, it is believed clear that *prima facie* obviousness has not been established. Reconsideration and allowance of claims 1-6 and 29-31 are respectfully requested.

#### **Regarding the rejection of claims 7-9**

Claims 7-9 were rejected based on Morel in view of Liu as previously applied and further in view of Le Clerc.

While these claims exhibit substantial further distinguishing features in and of themselves, these claims depend from claim 4, and are believed to clearly distinguish over Liu for the reasons stated above. In view of the discussion of Liu above, it is submitted that the assertions as to the teachings of Liu are in fact incorrect. It is further noted that (1) the Le Clerc reference fails to disclose anything about drift compensation, (2) it is not clear that drift occurs in Le Clerc's system and (3) Le Clerc also fails to even use the word "drift". Hence, Applicant finds no motivation to one of ordinary skill in the art to make the proposed

combination. Accordingly, there can be no *prima facie* case of obviousness. Reconsideration and allowance are respectfully requested.

**Regarding the rejection of claims 17 and 23**

Claims 17 and 23 were rejected based on Morel in view of Liu as previously applied and further in view of Le Clerc.

The above remarks regarding the shortcomings of Morel and Liu as well as their combination are reiterated for the present rejection. It is specifically noted that both claims 17 and 23 call for “dropping pixels from a reference frame of video; after dropping the pixels, decoding the dropped pixels to form a drift reference frame” or similar language. None of the cited references teach or suggest this claim feature as explained in greater detail above. Accordingly, there can be no *prima facie* obviousness of these claims.

**Regarding the rejection of claim 18 and 24**

Claims 18 and 24 were rejected based on Morel in view of Liu as previously applied and further in view of Le Clerc.

The above remarks regarding the parent claims are equally applicable. Additionally, the mapping and compensating as explicitly called for in the base claims are not met or suggested by Le Clerc.

**Regarding the rejection of claims 19 and 25**

Claims 19 and 25 were rejected based on Morel in view of Liu as previously applied and further in view of Le Clerc.

The above remarks regarding the parent claims are equally applicable. None of the cited references disclose or suggest “forming a dropped coefficient block containing the at least one coefficient; inverse quantizing the at least one coefficient to produce an inverse quantized dropped coefficient block; and inverse discrete cosine transforming the inverse quantized dropped coefficient block to produce the drift reduction block” as called for in the claims. Liu’s coefficients are dropped but there is no dropped coefficient block formed, and there is thus no inverse DCT carried out on the dropped coefficient block.

### **Regarding the rejection of claims 20-21 and 26-27**

Claims 20-21 and 26-27 were rejected based on Morel in view of Liu as previously applied and further in view of Le Clerc.

The above remarks regarding the parent claims are equally applicable. While the Liu reference discloses dropping coefficients containing high frequency coefficients, none of the cited references disclose or suggest “forming a dropped coefficient block containing the at least one coefficient; inverse quantizing the at least one coefficient to produce an inverse quantized dropped coefficient block; and inverse discrete cosine transforming the inverse quantized dropped coefficient block to produce the drift reduction block” as called for in the claims. Liu’s coefficients are dropped but there is no dropped coefficient block formed, and there is thus no inverse DCT carried out on the dropped coefficient block.

### **Regarding the rejection of claims 22 and 28**

Claims 22 and 28 were rejected based on Morel in view of Liu as previously applied and further in view of Le Clerc.

The above remarks are equally applicable. While there is an addition of data to a current video frame, the remaining claim features remain undisclosed and unsuggested.

### **Concluding remarks**

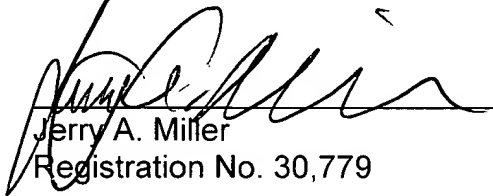
The undersigned notes that many additional distinctions exist between the cited references and the claims. However, in view of the above discussion, further elaboration on such differences is believed unnecessary. Thus, any failure to address a specific technical point raised in the Office Action should accordingly not be viewed as accession to any of the Examiner’s positions with regard to the relevance of these references to any of the claims of the present application.

In view of this communication, all claims are now believed to be in condition for allowance and such is respectfully requested at an early date.

**Interview request**

The undersigned respectfully requests the courtesy of an interview if any issues remain to be resolved after consideration of this response and prior to issuance of another action. The undersigned can be contacted during normal business hours at the telephone number listed below.

Respectfully submitted,



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